Oct. 11, 2002

Dr. Frank D'Erchia
Biological Science Coordinator
USGS Central Region
P.O. Box 25046, Bldg. 20, MS 300
Denver, Colorado, 80225

Dear Dr. D'Erchia:

Thank you for offering to present our needs for continuation of the FY2002 Integrated Partnership Project into FY2003. We would like to request $30.000 for FY2003, split evenly among BRD, WRD, and NMD for our ongoing effort. This past year we received a total of $50,000 split approximately 50%, 35%, and 15% across BRD, WRD, and NMD.

The following tasks were accomplished this past year:

- Preparation of proposal via email and confernence calls, Jan. 10-Feb. 22, 2002
- Intra-Angency meeting held in LaCrosse, WI, March 25-26, 2002, to discuss nitrate issues in the Mississippi River Basin,
- On-site meeting and field reconnaissance of partners, Aug. 21-22, Iowa City, IA
- Field sample collections Sept. 23-26, 2002 A total of 25 bacteria samples and 25 nutrient samples were collected at 15 Cedar River mainstem sites and 6 tributary sites using NAWQA protocols. A total of 80 soil samples were collected for denitrification experiments at 4 sites (2 mainstem and 2 tributary sites) distributed across five microhabitat types: river, slough, bottomland forest, grassed waterway, and agricultural
- Ongoing activities:
    - Analysis of bacteria, nutrients, soil quality, and denitrification potential of soils
    - Preparation of map layers for land use; area; soil type; vegetation; and denitrification potential.

- Proposed Additional FY2003 Effort

- Preparation of 1-3 manuscripts based on results; one abstract in preparation for submission and publication at American Water Resources Association Meeting, May 12-14, 2003, in Kansas City, MO.
- Establishment of contacts with NRCS, USDA, and USEPA
- Preparation of proposal for 3-5 year study of the sources and fate of nitrate at controlled study site in Eastern Iowa Basin

We have made serious commitments to this project this year. However, on-the-ground research such as this takes a considerable amount of time and effort. This past year we spent our dollars on travel and sample analysis to produce a dataset that allows us to explore the fate and transport of nitrate in the basin. We anticipate multiple publications from this data.

These publications will allow us to seek outside funding for additional studies for evaluation of the effects of temperature on processes; actual measures of seasonal water saturation and anoxia in soils in relation to actual denitrification; location of hotspots for denitrification potential in relation to restoration opportunities (i.e. wetland reserve; alteration of drain tiles; altered nitrogen application rates, etc.). We feel that the data and publications derived from this year's effort will allow us to develop a credible proposal for submission to other agencies (USDA, EPA) involved in land-management efforts. However, completion of this project requires a small amount of additional funding requested above.

We will be sending more information as results are derived. Thank you for considering this request for additional funding.

Sincerely,

James F. Fairchild
Research Ecologist

Cc:
Schnoebelen,
Kalkhoff,
Greenlee
Wasainen
Echols
Johnson
Little
Mac